

**DIRECTED MAXIMUM RATIO COMBINING METHODS
AND SYSTEMS FOR HIGH DATA RATE TRAFFIC**

ABSTRACT OF THE DISCLOSURE

Methods are provided for choosing mobile stations that have low cross correlations between their array response vectors, thereby minimizing inter-cell interference through uneven average reverse link data rates experienced by the mobile stations and minimizing intra-cell interference without explicit implementation of an interference cancellation algorithm, thereby maximizing the reverse link data throughput of a wireless communication system. Selected mobile stations of one or more are transmitted simultaneously to a base station.

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